CLAIMS

1 A method of cutting a borehole core sample using locating means for holding the core sample and a cutting device, comprising

submerging the core sample in a liquid bath and

then moving the cutting device relative to the core sample to cut the sample in the bath.

2 A method as claimed in claim 1 wherein the locating means is fixed and the cutting head moves relative thereto.

3 A method as claimed in claim 1 or 2 using a rotary cutting device.

4 A core splitter comprising

a trough in which the liquid bath will, in use, be contained,

a core support device for holding a core in position during a cutting operation, which device is located within the trough, and

a cutting head to which a cutter may be attached and which can be moved along the trough to cut the core along radial planes into two or more parts.

5 A core splitter as claimed in claim 4 wherein the trough is substantially watertight and the core support device is located at a position such that when the trough has an appropriate amount of water therein, the core will be below the level of the water.

6 A core splitter as claimed in claim 4 or 5 wherein the cutting head runs along linear bearing means located longitudinally of the trough.

7 A core splitter as claimed in claim 6 wherein the linear bearing means is located above the level of the trough.

8 A core splitter as claimed in claim 7 wherein the cutting head comprises

a cradle incorporating roller means that engage the linear bearing means,

an electric motor mounted on the cradle,

a rotatable cutting tool, preferably a cutting blade, that is driven directly by the electric motor, and

a cowling within which the tool is contained.

9 A core splitter as claimed in claim 8 wherein the cowling is arranged so as to have its lower edges submerged within the bath.

10 A core splitter as claimed in any one of claims 4 to 9 wherein the core support device is adjustable to permit the level of the core relative to the cutting to be altered.

11 A core splitter as claimed in claim 10 wherein the core support device comprises two pairs of support members located so as to support the ends of the core sample, the support members each having an inclined supporting surface arranged so that the supporting surfaces of the members of a pair form a seat and moving means for moving the support members of each pair apart so that the position of the core sample on the seat can be lowered.

12 A core splitter as claimed in claim 11 wherein the support members of a pair have aligned bores which are threaded with oppositely handed threads and wherein a

threaded shaft engages the said bores so that on rotation of the shaft the members are moved away from or towards each other.

13 A core splitter as claimed in claim 12 wherein the shafts of the two pairs of support members are connected to rotate together.

14 A core splitter as claimed in claim 13 wherein the shafts of the two pairs of support members are connected by a belt an pulley arrangement.

15 A core splitter as claimed in any one of claims 4 to 15 further comprising means for moving the head along the length of the trough, such means comprising an elongated screw member which engages in a nut that is carried by the head and which, when rotated, moves the head.

16 A core splitter as claimed in any one of the preceding claims further comprising a settling tank is to receive cuttings from the water.

17 A core splitter as claimed in claim 16 wherein the settling tank is located below and at one end of the trough.

18 A core splitter as claimed in claim 16 or 17 further comprising a concentration tank and means to deliver sludge from the settling tank so that further settling can take place.

19 A core holder in which the core is carried in the use of the core splitter as claimed in any one of claims 4 to 18 or during the method claimed in claims 1, 2 or 3,

the core holder being of polygonal and preferably hexagonal section and dimensioned to hold the core firmly, the core holder having a slot at its upper end through which the cutter can enter the core holder to cut the core.

20 A core holder as claimed in claim 19 wherein the core holder is provided at the lower end with slots through which the cuttings and other detritus formed during the cutting operation can pass into the trough.